Thomas Bryant
Richmond Liner Foundry and Machining Plant, Perfect Circle Division,
Dana Corporation
P.O. Box 1446
Richmond, Indiana 47375

Re: Significant Source Modification No:
177-12987-00090

Dear Mr. Bryant:

Richmond Liner Foundry and Machining Plant, Perfect Circle Division, Dana Corporation applied for a Part 70 operating permit on October 11, 1996 for a gray iron foundry. An application to modify the source was received on November 15, 2000. Pursuant to 326 IAC 2-7-10.5, the following emission units are approved for construction at the source:

(a) One (1) longtube 92-inch centrifugal casting machine (spinner #18) to be added to spinner group 1, Unit ID 090, equipped with an existing baghouse, known as DC#1, exhausted through Stack 090h, capacity: 1.70 tons of metal per hour

(b) Four (4) longtube 60-inch centrifugal casting machines (spinners # 41, 43, 45, and 47) to be added to spinner group 4, Unit ID 090, equipped with an existing baghouse, known as DC#3, exhausted through Stack 090a, capacity: 1.11 tons of metal per hour each.

(c) One (1) pangborn ES-2029-1\S000203 rotoblast cabinet (cleaning mill #7) to be added in Unit ID 100 to replace cleaning mill #5, equipped with an existing baghouse, known as DC#10, exhausted through Stack 100b, capacity: 13.0 tons of metal per hour, blast rate 80.75 tons of cast steel shot per hour.

The Significant Source Modification approval will be incorporated into the pending Part 70 permit application pursuant to 326 IAC 2-7-10.5(l)(3). If there are no changes to the proposed construction of the emission units, the source may begin operating on the date that IDEM receives an affidavit of construction pursuant to 326 IAC 2-7-10.5(h). If there are any changes to the proposed construction the source can not operate until an Operation Permit Validation Letter is issued.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter call (800) 451-6027, press 0 and ask for Mark L. Kramer, c/o OAQ, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, at 631-691-3395 or in Indiana at 1-800-451-6027 (ext 631-691-3395).

Sincerely,

Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

MLK/MES
Attachments
cc: File - Wayne County
U.S. EPA, Region V
Wayne County Health Department
Air Compliance Section Inspector - Warren Greiling
Compliance Data Section - Karen Nowak

Administrative and Development - Janet Mobley
Technical Support and Modeling - Michele Boner

PART 70 SIGNIFICANT SOURCE MODIFICATION
OFFICE OF AIR QUALITY

Richmond Liner Foundry and Machining Plant, Perfect Circle Division, Dana Corporation
2153 and 2175 Williamsburg Pike, Richmond, Indiana 47375

(herein known as the Permittee) is hereby authorized to construct and operate subject to the conditions contained herein, the emission units described in Section A (Source Summary) of this approval.

This approval is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Source Modification No.: 177-12987-00090	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date:

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SECTION A SOURCE SUMMARY

This approval is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the emission units contained in conditions A.1 through A.2 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this approval pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

The Permittee owns and operates a stationary gray iron foundry source.

Responsible Official:	Thomas Bryant
Source Address:	2153 and 2175 Williamsburg Pike, Richmond, Indiana 47375
Mailing Address:	P.O. Box 1446, Richmond, Indiana 47375
SIC Code:	3321, 3398, 3592
County Location:	Wayne
County Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Permit Program Major Source, under PSD; Major Source, Section 112 of the Clean Air Act 1 of 28 Source Categories

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source is approved to construct and operate the following emission units and pollution control devices:

(a) One (1) longtube 92-inch centrifugal casting machine (spinner #18) to be added to spinner group 1, Unit ID 090, equipped with an existing baghouse, known as DC#1, exhausted through Stack 090h, capacity: 1.70 tons of metal per hour.

(b) Four (4) longtube 60-inch centrifugal casting machines (spinners # 41, 43, 45, and 47) to be added to spinner group 4, Unit ID 090, equipped with an existing baghouse, known as DC#3, exhausted through Stack 090a, capacity: 1.11 tons of metal per hour each.

(c) One (1) pangborn ES-2029-1\S000203 rotoblast cabinet (cleaning mill #7) to be added to Unit ID 100, equipped with an existing baghouse, known as DC#10, exhausted through Stack 100b, capacity: 13.0 tons of metal per hour, blast rate 80.75 tons of cast steel shot per hour.

A.3 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

(a) It is a major source, as defined in 326 IAC 2-7-1(22);

(b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

SECTION B GENERAL CONSTRUCTION CONDITIONS

B.1 Permit No Defense [IC 13]

This approval to construct does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

B.2 Definitions [326 IAC 2-7-1]

Terms in this approval shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, any applicable definitions found in IC 13-11, 326 IAC 1-2 and 326 IAC 2-7 shall prevail.

B.3 Effective Date of the Permit [IC13-15-5-3]

Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.

B.4 Revocation of Permits [326 IAC 2-1.1-9(5)][326 IAC 2-7-10.5(i)]

Pursuant to 326 IAC 2-1.1-9(5)(Revocation of Permits), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

B.5 Significant Source Modification [326 IAC 2-7-10.5(h)]

This document shall also become the approval to operate pursuant to 326 IAC 2-7-10.5(h) when, prior to start of operation, the following requirements are met:

(a) The attached affidavit of construction shall be submitted to the Office of Air Quality (OAQ), Permit Administration & Development Section, verifying that the emission units were constructed as proposed in the application. The emissions units covered in the Significant Source Modification approval may begin operating on the date the affidavit of construction is postmarked or hand delivered to IDEM if constructed as proposed.

(b) If actual construction of the emissions units differs from the construction proposed in the application, the source may not begin operation until the source modification has been revised pursuant to 326 IAC 2-7-11 or 326 IAC 2-7-12 and an Operation Permit Validation Letter is issued.

(c) If construction is completed in phases; i.e., the entire construction is not done continuously, a separate affidavit must be submitted for each phase of construction. Any permit conditions associated with operation start up dates such as stack testing for New Source Performance Standards (NSPS) shall be applicable to each individual phase.

(d) The Permittee shall receive an Operation Permit Validation Letter from the Chief of the Permit Administration & Development Section and attach it to this document.

However, in the event that the Title V application is being processed at the same time as this application, the following additional procedures shall be followed for obtaining the right to operate:

(1) If the Title V draft permit has not gone on public notice, then the change/addition covered by the Significant Source Modification will be included in the Title V draft.

(2) If the Title V permit has gone thru final EPA proposal and would be issued ahead of

the Significant Source Modification, the Significant Source Modification will go thru a concurrent 45 day EPA review. Then the Significant Source Modification will be incorporated into the final Title V permit at the time of issuance.

(3) If the Title V permit has not gone thru final EPA review and would be issued after the Significant Source Modification is issued, then the Modification would be added to the proposed Title V permit, and the Title V permit will issued after EPA review.

SECTION C GENERAL OPERATION CONDITIONS

C.1 Certification [326 IAC 2-7-4(f)][326 IAC 2-7-6(1)][326 IAC 2-7-5(3)(C)]

(a) Where specifically designated by this approval or required by an applicable requirement, any application form, report, or compliance certification submitted under this approval shall contain certification by a responsible official of truth, accuracy, and completeness. This certification, shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

(b) One (1) certification shall be included, on the attached Certification Form, with each submittal.

(c) A responsible official is defined at 326 IAC 2-7-1(34).

C.2 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)] [326 IAC 2-7-6(1) and (6)] [326 IAC 1-6-3]

(a) If required by specific condition(s) in Section D of this approval, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMP) within ninety (90) days after issuance of this approval, including the following information on each facility:

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions;

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If due to circumstances beyond Permittee's control, the PMP cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

(b) The Permittee shall implement the PMPs as necessary to ensure that failure to implement a PMP does not cause or contribute to a violation of any limitation on emissions or potential to emit.

(c) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or contributes to any violation. The PMP does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(d) Records of preventive maintenance required by the PMP shall be retained for a period of at least five (5) years. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable

time.

C.3 Permit Amendment or Modification [326 IAC 2-7-11] [326 IAC 2-7-12]

(a) The Permittee must comply with the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this approval.

(b) Any application requesting an amendment or modification of this approval shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

Any such application should be certified by the "responsible official" as defined by 326 IAC 2-7-1(34).

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

C.4 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary alternative opacity limitations), opacity shall meet the following, unless otherwise stated in this approval:

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.

C.5 Operation of Equipment [326 IAC 2-7-6(6)]

Except as otherwise provided by statute, rule, or in this permit, all air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation.

C.6 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted by using good engineering practices (GEP) pursuant to 326 IAC 1-7-3. The provisions of 326 IAC 1-7-2, 326 IAC 1-7-3(c) and (d), 326 IAC 1-7-4(d), (e), and (f), and 326 IAC 1-7-5(d) are not federally enforceable.

Testing Requirements [326 IAC 2-7-6(1)]

C.7 Performance Testing [326 IAC 3-6][326 IAC 2-1.1-11]

(a) Compliance testing on new emission units shall be conducted within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up, if specified in Section D of this approval. All testing shall be performed according to the provisions of 326

IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this approval, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this approval, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date. The Permittee shall submit a notice of the actual test date to the above address so that it is received at least two weeks prior to the test date.

(b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ, if the source submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Monitoring Requirements [326 IAC 2-7-5(1)] [326 IAC 2-7-6(1)]

C.8 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

Compliance with applicable requirements shall be documented as required by this permit. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. All monitoring and record keeping requirements not already legally required shall be implemented when operation begins.

C.9 Maintenance of Monitoring Equipment [326 IAC 2-7-5(3)(A)(iii)]

(a) In the event that a breakdown of the monitoring equipment occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem. To the extent practicable, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less frequent than required in Section D of this approval until such time as the monitoring equipment is back in operation. In the case of continuous monitoring, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less than often than once an hour until such time as the continuous monitor is back in operation.

(b) The Permittee shall install, calibrate, quality assure, maintain, and operate all necessary monitors and related equipment. In addition, prompt corrective action shall be initiated whenever indicated.

C.10 Pressure Gauge Specifications

Whenever a condition in this permit requires the measurement of pressure drop across any part of the unit or its control device, the gauge employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent (±2%) of full scale reading.

Corrective Actions and Response Steps [326 IAC 2-7-5] [326 IAC 2-7-6]

C.11 Compliance Monitoring Plan - Failure to Take Response Steps [326 IAC 2-7-5] [326 IAC 2-7-6]

(a) The Permittee is required to implement a compliance monitoring plan to ensure that reasonable information is available to evaluate its continuous compliance with applicable requirements. The compliance monitoring plan can be either an entirely new document, consist in whole of information contained in other documents, or consist of a combination of new information and information contained in other documents. If the compliance monitoring plan incorporates by reference information contained in other documents, the Permittee shall identify as part of the compliance monitoring plan the documents in which the information is found. The elements of the compliance monitoring plan are:

(1) This condition;

(2) The Compliance Determination Requirements in Section D of this permit;

(3) The Compliance Monitoring Requirements in Section D of this permit;

(4) The Record Keeping and Reporting Requirements in Section C (Monitoring Data Availability, General Record Keeping Requirements, and General Reporting Requirements) and in Section D of this permit; and

(5) A Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. CRP's shall be submitted to IDEM, OAQ, upon request and shall be subject to review and approval by IDEM, OAQ, when applicable). The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee and maintained on site, and is comprised of:

(A) Reasonable response steps that may be implemented in the event that compliance related information indicates that a response step is needed pursuant to the requirements of Section D of this permit; and

(B) A time schedule for taking reasonable response steps including a schedule for devising additional response steps for situations that may not have been predicted.

(b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition. Failure to take reasonable response steps may constitute a violation of the permit.

(c) Upon investigation of a compliance monitoring excursion, the Permittee is excused from taking further response steps for any of the following reasons:

(1) A false reading occurs due to the malfunction of the monitoring equipment. This shall be an excuse from taking further response steps providing that prompt action was taken to correct the monitoring equipment.

(2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied or;

(3) An automatic measurement was taken when the process was not operating; or

(4) The process has already returned or is returning to operating within "normal" parameters and no response steps are required.

(d) Records shall be kept of all instances in which the compliance related information was not met and of all response steps taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.

(e) All monitoring required in Section D shall be performed at all times the equipment is operating. If monitoring is required by Section D and the equipment is not operating, then the Permittee may record the fact that the equipment is not operating or perform the required monitoring.

(f) At its discretion, IDEM may excuse the Permittee's failure to perform the monitoring and record keeping as required by Section D, if the Permittee provides adequate justification and documents that such failures do not exceed five percent (5%) of the operating time in any quarter. Temporary, unscheduled unavailability of qualified staff shall be considered a valid reason for failure to perform the monitoring or record keeping requirements in Section D.

C.12 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5] [326 IAC 2-7-6]

(a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this approval exceed the level specified in any condition of this approval, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize emissions from the affected facility while the response actions are being implemented. IDEM, OAQ shall notify the Permittee within thirty (30) days, if the corrective actions taken are deficient. The Permittee shall submit a description of additional corrective actions taken to IDEM, OAQ within thirty (30) days of receipt of the notice of deficiency. IDEM, OAQ reserves the authority to use enforcement activities to resolve noncompliant stack tests.

(b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline. Failure of the second test to demonstrate compliance with the appropriate approval conditions may be grounds for immediate revocation of the approval to operate the affected facility.

The documents submitted pursuant to this condition do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

C.13 Monitoring Data Availability [326 IAC 2-7-6(1)] [326 IAC 2-7-5(3)]

(a) With the exception of performance tests conducted in accordance with Section C- Performance Testing, all observations, sampling, maintenance procedures, and record keeping, required as a condition of this approval shall be performed at all times the equipment is operating at normal representative conditions.

(b) As an alternative to the observations, sampling, maintenance procedures, and record keeping of subsection (a) above, when the equipment listed in Section D of this approval is not

operating, the Permittee shall either record the fact that the equipment is shut down or perform the observations, sampling, maintenance procedures, and record keeping that would otherwise be required by this approval.

(c) If the equipment is operating but abnormal conditions prevail, additional observations and sampling should be taken with a record made of the nature of the abnormality.

(d) If for reasons beyond its control, the operator fails to make required observations, sampling, maintenance procedures, or record keeping, reasons for this must be recorded.

(e) At its discretion, IDEM may excuse such failure providing adequate justification is documented and such failures do not exceed five percent (5%) of the operating time in any quarter.

(f) Temporary, unscheduled unavailability of staff qualified to perform the required observations, sampling, maintenance procedures, or record keeping shall be considered a valid reason for failure to perform the requirements stated in (a) above.

C.14 General Record Keeping Requirements [326 IAC 2-7-5(3)][326 IAC 2-7-6]

(a) Records of all required data, reports and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years and available upon the request of an IDEM, OAQ, representative. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a written request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

(b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of approval issuance.

C.15 General Reporting Requirements [326 IAC 2-7-5(3)(C)]

(a) The reports required by conditions in Section D of this approval shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

(b) Unless otherwise specified in this approval, any notice, report, or other submission required by this approval shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

(c) Unless otherwise specified in this approval, any quarterly report shall be submitted within thirty (30) days of the end of the reporting period. The reports do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(d) The first report shall cover the period commencing on the date of issuance of this approval and ending on the last day of the reporting period.

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

(a) One (1) longtube 92-inch centrifugal casting machine (spinner #18) to be added to spinner group 1, Unit ID 090, equipped with an existing baghouse, known as DC#1, exhausted through Stack 090h, capacity: 1.70 tons of metal per hour.

(b) Four (4) longtube 60-inch centrifugal casting machines (spinners # 41, 43, 45, and 47) to be added to spinner group 4, Unit ID 090, equipped with an existing baghouse, known as DC#3, exhausted through Stack 090a, capacity: 1.11 tons of metal per hour each.

(c) One (1) pangborn ES-2029-1\S000203 rotoblast cabinet (cleaning mill #7) to be added to Unit ID 100, equipped with an existing baghouse, known as DC#10, exhausted through Stack 100b, capacity: 13.0 tons of metal per hour, blast rate 80.75 tons of cast steel shot per hour.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.1.1 Particulate Matter (PM) [326 IAC 6-1]

(a) The particulate matter (PM) emissions from the five (5) centrifugal casting operations (Unit ID 090) shall not exceed 0.03 grains per dry standard cubic foot of exhaust air for:

(1) The one (1) longtube 92-inch centrifugal casting machine (spinner #18), (Group 1), exhausting through Stack 090h, equivalent to 0.883 pounds per hour at flow rate of 3,433 dry standard cubic feet per minute.

(2) The four (4) longtube 60-inch centrifugal casting machines (spinners # 41, 43, 45, and 47) (Group 4), exhausting through Stack 090a, equivalent to 4.77 pounds per hour at flow rate of 18,555 dry standard cubic feet per minute.

(b) The particulate matter (PM) emissions from the one (1) cleaning mill #7 (Unit ID 100) shall not exceed 0.03 grains per dry standard cubic foot, equivalent to 3.96 pounds per hour at a flow rate of 15,394 dry standard cubic feet per minute each for Stack 100b.

D.1.2 Prevention of Significant Deterioration (PSD) [326 IAC 2-2]

Any change or modification which would increase the total potential to emit from the one (1) longtube 92-inch centrifugal casting machine (spinner #18), the four (4) longtube 60-inch centrifugal casting machines (spinners # 41, 43, 45, and 47) and the one (1) pangborn ES-2029-1\S000203 rotoblast cabinet (cleaning mill #7) of:

(a) PM to twenty-five (25) tons per year or more, shall obtain prior approval from IDEM, OAQ, or

(b) PM_{10} to fifteen (15) tons per year or more, shall obtain prior approval from IDEM, OAQ.

D.1.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the five (5) centrifugal casting operations, known as Unit ID 090 and the one (1) cleaning mill #7, known as Unit ID 100 and their control devices.

Compliance Determination Requirements

D.1.4 Particulate Matter (PM)

In order to comply with Condition D.1.1, the three (3) baghouses, known as DC#1, DC#3 and, DC#10 for PM control shall be in operation at all times when the five (5) centrifugal casting operations, the one (1) cleaning mill #7 are in operation.

D.1.5 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

During the period between 60 and 180 days after cleaning mill #7 is in operation, in order to demonstrate compliance with Condition D.1.1(b), the Permittee shall perform PM testing of cleaning mill #7of utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C- Performance Testing.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.1.6 Visible Emissions Notations

(a) Visible emission notations of the centrifugal casting stack exhausts (Stacks 090a and 090h) and of the cleaning mill #7 stack exhaust 100b shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

D.1.7 Parametric Monitoring

(a) The Permittee shall record the total static pressure drop across each of the three (3) baghouses, known as DC#1 and DC#3 controlling the centrifugal casting operations at least once per shift when casting is in operation. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across each of the baghouses shall be maintained within the range of 3 to 10 inches of water or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

(b) The Permittee shall record the total static pressure drop across the one (1) baghouse, known as DC#10 controlling the cleaning operations at least once per shift when cleaning mill #7 is

in operation. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of 3 to 10 inches of water or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.1.8 Baghouse Inspections

An inspection shall be performed each calendar quarter of all bags controlling the centrifugal casting operations and the cleaning mill when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. All defective bags shall be replaced.

D.1.9 Broken or Failed Bag Detection

In the event that bag failure has been observed:

(a) For multi-compartment units, the affected compartments which cannot be repaired without shutting down the unit will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

(b) For single compartment baghouses, failed units which cannot be repaired without shutting down the collector, and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.1.10 Record Keeping Requirements

(a) To document compliance with Condition D.1.6, the Permittee shall maintain records of visible emission notations of the centrifugal casting and shot blasting stack exhausts once per shift.

(b) To document compliance with Condition D.1.7, the Permittee shall maintain the following:

(1) Records of the following operational parameters during normal operation when venting to the atmosphere once per shift:

(A) Inlet and outlet differential static pressure; and

(B) Cleaning cycle.

(2) Documentation of the dates vents are redirected.

(c) To document compliance with Condition D.1.8, the Permittee shall maintain records of the results of the inspections required under Condition D.1.8 and the date the vents are redirected.

(d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

PART 70 SOURCE MODIFICATION CERTIFICATION

Source Name: Richmond Liner Foundry and Machining Plant, Perfect Circle Division, Dana Corporation
Source Address: 2153 and 2175 Williamsburg Pike, Richmond, Indiana 47375
Mailing Address: P.O. Box 1446, Richmond, Indiana 47375
Source Modification No.: 177-12987-00090

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this approval.

Please check what document is being certified:

9 Test Result (specify) _____

9 Report (specify) _____

9 Notification (specify) _____

9 Affidavit (specify) _____

9 Other (specify) _____

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Phone:

Date:

Indiana Department of Environmental Management
Office of Air Quality

Addendum to the
Technical Support Document for a Part 70 Significant Source Modification

Source Name:	**Richmond Liner Foundry and Machining Plant, Perfect Circle Division**
Source Location:	**2153 and 2175 Williamsburg Pike, Richmond, Indiana 47375**
County:	**Wayne**
SIC Code:	**3321, 3398, 3592**
Source Modification:	**177-12987-00090**
Permit Reviewer:	**Mark L. Kramer**

On January 23, 2001, the Office of Air Quality (OAQ) had a notice published in the Palladium Item, Richmond, Indiana, stating that Richmond Liner Foundry and Machining Plant, Perfect Circle Division had applied for a Significant Source Modification for gray iron foundry with baghouses for particulate matter control. The notice also stated that OAQ proposed to issue a Significant Source Modification for this operation and provided information on how the public could review the proposed Significant Source Modification and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this Significant Source Modification should be issued as proposed.

On February 5, 2001, the following residents submitted a comment on the proposed Part 70 Operating Permit.

Lisa J. Edington
Deborah Hughes
Karen Reece
Teressa Toney
Stephanie Duroker
Tony Weber
Mike Sebring
Michael Savoy
William Leath
Don L. Longworth
Larry Sheets
Tim Sullivan
Glen Baker
Donald G. Nolbe
Bill Monroe
Dewey Lakes
Don Tenney
Kyle Huddlert
Joseph D.
Bradley A. Tarf
Dawn Beene
Virgil Trecher
Ray Wilt
J. D. Wayne
Ron Pri

and three (3) illegible signatures

Their comment is as follows:

Comment 1:

We, as private citizens, wish to comment on permits T 177-6887-0090 and 171-12987 and ensuing modifications for these permits at Data Linear Foundry. We feel these permits should not be issued or modified, because the existing baghouse equipment is not properly functioning and/or adequate for current equipment. We feel that an additional burden to the existing baghouses will pose an increased threat to our environment, health and property.

In closing, we urge you take our concerns seriously. We know that our vehicles and possibly our health have already been affected.

On February 2, 2001, Carol Isaacs of Richmond, Indiana submitted comments by telephone (765 962-4713) on the proposed Significant Source Modification. The comments are as follows: The permit language, if changed, has deleted language as ~~strikeouts~~ and new language **bolded.**

Comment 2:

Ms. Isaacs stated she saw that between January 4 - 10, 2001, the Richmond Liner Foundry and Machining Plant, Perfect Circle Division emitted excessive smoke. She stated that she had already spoken with Richard Sekula, Inspector. She also stated that her car as well as other cars in the area have suddenly developed extensive rust problems covering all metal surfaces of her "new" car. An estimate of $3,900 was given to her to prepare and re-paint her car that she purchased this year. The auto-body personnel claimed that it appeared that the damage was due to acid eating away at the paint. Furthermore, upon talking with Brent Hylton, of Hills who talked to Tom Steins of the plant, the foundry had experienced a "leak" in a baghanger room.

In addition, Ms. Isaacs also voiced her concerns regarding the long-term health effects of small particles emitted from the foundry. She stated that she and members of her family have experienced frequent health problems that she feels may be related to emissions from the foundry.

Therefore, she requests that the proposed modification which adds equipment to existing baghouses should not be approved unless they update the baghouses to assure that they do not have continuing or additional problems.

Response to Comments 1 & 2:

The OAQ thanks the residents and Ms. Isaacs for their concerns regarding the proposed significant source modification of the Richmond Liner Foundry and Machining Plant, Perfect Circle Division.

The proposed source modification contains conditions that when complied with assures that the control devices are operating properly and are required to operate at all times that the equipment they are controlling is in operation. The actual emissions from the cleaning mill will be measured by a stack test to assure compliance. These conditions consist of having trained plant personnel observing visible emission once per shift from each of the proposed facilities proposed. In addition, monitoring of the proper operation of the baghouses via checking the pressure drop across each of the baghouses will also be required to be performed once per shift. Furthermore, each baghouse will need to be inspected at least once per calendar quarter. If any bag failures have been observed, the affected operations will need to be shutdown immediately until the failed units have been repaired or replaced unless there are **no visible emissions** or the failure qualifies as an emergency. The OAQ is continuing to develop the Part 70 Operating Permit that will establish similar monitoring conditions for the entire plant. Persons who received notice of this decision will also receive notice of future permit actions regarding the plant-wide Part 70 permit.

These above are covered by the following conditions abstracted from the proposed permit with a typographical error corrected in Condition D.1.10(c) with deleted language appears as ~~strikeouts~~:

D.1.4 Particulate Matter (PM)

In order to comply with Condition D.1.1, the three (3) baghouses, known as DC#1, DC#3 and, DC#10 for PM control shall be in operation at all times when the five (5) centrifugal casting operations, the one (1) cleaning mill #7 are in operation.

D.1.5 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

During the period between 60 and 180 days after cleaning mill #7 is in operation, in order to demonstrate compliance with Condition D.1.1(b), the Permittee shall perform PM testing of cleaning mill #7of utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C- Performance Testing.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.1.6 Visible Emissions Notations

(a) Visible emission notations of the centrifugal casting stack exhausts (Stacks 090a and 090h) and of the cleaning mill #7 stack exhaust 100b shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

D.1.7 Parametric Monitoring

(a) The Permittee shall record the total static pressure drop across each of the three (3) baghouses, known as DC#1 and DC#3 controlling the centrifugal casting operations at least once per shift when casting is in operation. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across each of the baghouses shall be maintained within the range of 3 to 10 inches of water or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

(b) The Permittee shall record the total static pressure drop across the one (1) baghouse, known as DC#10 controlling the cleaning operations at least once per shift when cleaning mill #7 is in operation. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of 3 to 10 inches of water or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.1.8 Baghouse Inspections

An inspection shall be performed each calendar quarter of all bags controlling the centrifugal casting operations and the cleaning mill when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. All defective bags shall be replaced.

D.1.9 Broken or Failed Bag Detection

In the event that bag failure has been observed:

(a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

(b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.1.10 Record Keeping Requirements

(a) To document compliance with Condition D.1.6, the Permittee shall maintain records of visible emission notations of the centrifugal casting and shot blasting stack exhausts once per shift.

(b) To document compliance with Condition D.1.7, the Permittee shall maintain the following:

(1) Records of the following operational parameters during normal operation when venting to the atmosphere once per shift:

(A) Inlet and outlet differential static pressure; and

(B) Cleaning cycle.

(2) Documentation of the dates vents are redirected.

(c) To document compliance with Condition D.1.8, the Permittee shall maintain records of the results of the inspections required under Condition D.1.8 and the dated the vents are re-directed.

(d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

If the smoke condition occurs in the future, IDEM, OAQ recommends that you contact the inspector toll-free at 1-800-451-6027 and if possible note the date, time, and direction from which the abnormal smoke plume originates or if possible the stack location in the foundry.

While OAQ sympathizes with the health problems experienced by Ms. Isaacs and her family and neighbors, the emissions from the proposed modification documented in the Technical Support Document comply with all applicable State and Federal rules.

Particulate matter, sulfur dioxide, ozone, and nitrogen oxides are regulated by the National Ambient Air Quality Standards (NAAQS). Particulate matter is defined as Total Suspended Particulates (TSP) and Particulate Matter with size diameters less than or equal to 10 microns (PM_{10}). Volatile organic compounds (VOC) and oxides of nitrogen are precursors for the formation of ozone. Therefore, VOC and NO_X emissions are considered when evaluating the rule applicability relating to the ozone standards. Wayne County is in attainment with the TSP and PM_{10} as well as ozone, nitrogen oxides and sulfur dioxide NAAQS, which are health-based standards. A margin of safety is incorporated into the NAAQS levels. This proposed modification will emit no sulfur dioxide, volatile organic compounds or nitrogen oxides. The TSP and PM_{10} emissions are less than the PSD significant levels.

Therefore, no changes have been made to the proposed permit.

On February 9, 2001, James P. Lieb of RMT, consultant to the Richmond Liner Foundry and Machining Plant, Perfect Circle Division, submitted comments on the proposed Significant Source Modification. The comments are as follows: The permit language, if changed, has deleted language as ~~strikeouts~~ and new language **bolded.**

Comment 1:

As discussed in Dana's cover letter that was submitted to the IDEM with Dana's construction permit application on November 7, 2000, Dana proposed to retain the cleaning mill #5 until the cleaning mill #7 passed Dana's equipment qualification process. Dana's intention to retain the cleaning mill #5 was also mentioned in RMT's letter to the IDEM (Mr. Donald Poole) on October 24, 2000. Dana proposed to include an adjustable damper in the duct-work leading to DC#10 so that only one of the two cleaning

mills can be operated at any one time. At the time the letters were submitted to the IDEM, Dana believed that customer demand would disappear for the casting type handled on cleaning mill #5 and the casting would no longer be produced. On the contrary, in the period of time that has elapsed since Dana submitted its construction permit application, there is renewed customer demand for this casting. Dana wishes to retain the cleaning mill #5 on an indefinite basis because of continuing customer demand for the castings that are processed in cleaning mill #5. These castings cannot be processed in the new cleaning mill #7.

There will be no increase or change in potential emissions from the significant source modification application as only one cleaning mill can be operated at any one time and the potential emissions from each cleaning mill separately are equivalent.

Therefore, the following conditions will need to be revised to show that cleaning mill #5 will be retained indefinitely and that Dana will install an adjustable damper in the duct leading to DC#10 such that only one of the two cleaning mills can be used at any one time:

(a) Section A.2(c)

(b) Section D.1 Facility Description [326 IAC 2-7-5(15)] (c)

(c) Technical Support Document Source Background and Description (c) and History

Response 1:

This Addendum serves to update the Technical Support Document and show all changes to the proposed permit.

Condition A.2(c) and Section D.1(c) have been revised to eliminate reference to the removal of Cleaning Mill #5 since current plans now call for its retention. The retention of Cleaning Mill #5 which was previously permitted does not change the level of the proposed modification, nor does it affect the determination that this modification is minor with respect to 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) and therefore the requirements of 326 IAC 2-2 are not applicable to this modification. The changes are as follows:

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)]
[326 IAC 2-7-5(15)]

This stationary source is approved to construct and operate the following emission units and pollution control devices:

(c) One (1) pangborn ES-2029-1\S000203 rotoblast cabinet (cleaning mill #7) to be added to Unit ID 100 ~~to replace cleaning mill #5~~, equipped with an existing baghouse, known as DC#10, exhausted through Stack 100b, capacity: 13.0 tons of metal per hour, blast rate 80.75 tons of cast steel shot per hour.

In the TSD under Stasck Summary, Stack ID 100b should now be for Cleaning Mills #5 and #7. The correction is shown as follows:

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (EF)
090a	Four (4) 60-inch spinners Group 4	35	2.0	20,000	100
090h	One (1) 92-inch spinner Group 1	15	1.0	3,700	100
100b	~~One (1)~~ Cleaning Mill**s** #5 and **#7**	32	2.0	16,000	80

Upon further review, the OAQ has decided to make the following changes to the Significant Source Modification: The permit language is changed to read as follows (deleted language appears as ~~strikeouts~~, new language is **bolded)**:

1. Condition C.2(d) has been clarified that only those record required by the PMP shall be retained as follows:

C.2 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)] [326 IAC 2-7-6(1) and (6)] [326 IAC 1-6-3]

(d) Records of preventive maintenance **required by the PMP** shall be retained for a period of at least five (5) years. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

2. Condition D.1.9 has been clarified when the baghouse should be shut down for repair as follows:

D.1.9 Broken or Failed Bag Detection

In the event that bag failure has been observed:

(a) For multi-compartment units, the affected compartments **which cannot be repaired without shutting down the unit** will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

(b) For single compartment baghouses, failed units **which cannot be repaired without shutting**

down the collector, and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Part 70
Significant Source Modification

Source Background and Description

Source Name:	**Richmond Liner Foundry and Machining Plant, Perfect Circle Division, Dana Corporation**
Source Location:	**2153 and 2175 Williamsburg Pike Richmond, Indiana 47375**
County:	**Wayne**
SIC Code:	**3321, 3398, 3592**
Operation Permit No.:	**T 177-6887-00090**
Operation Permit Issuance Date:	**Not Yet Issued**
Significant Source Modification No.:	**SSM 177-12987-00090**
Permit Reviewer:	**Mark L. Kramer**

The Office of Air Quality (OAQ) has reviewed a modification application from Richmond Liner Foundry and Machining Plant, Perfect Circle Division, Dana Corporation relating to the construction of the following emission units and pollution control devices:

(a) One (1) longtube 92-inch centrifugal casting machine (spinner #18) to be added to spinner group 1, Unit ID 090, equipped with an existing baghouse, known as DC#1, exhausted through Stack 090h, capacity: 1.70 tons of metal per hour.

(b) Four (4) longtube 60-inch centrifugal casting machines (spinners # 41, 43, 45, and 47) to be added to spinner group 4, Unit ID 090, equipped with an existing baghouse, known as DC#3, exhausted through Stack 090a, capacity: 1.11 tons of metal per hour each.

(c) One (1) pangborn ES-2029-1\S000203 rotoblast cabinet (cleaning mill #7) to be added to Unit ID 100 to replace cleaning mill #5, equipped with an existing baghouse, known as DC#10, exhausted through Stack 100b, capacity: 13.0 tons of metal per hour, blast rate 80.75 tons of cast steel shot per hour.

History

On November 15, 2000, Richmond Liner Foundry and Machining Plant, Perfect Circle Division, Dana Corporation submitted an application to the OAQ requesting to add additional spinners and a cleaning mill to their existing Richmond Liner Foundry plant. The new cleaning mill #7 will replace cleaning mill #5. The five (5) new spinners and the cleaning mill will be equipped with existing baghouses for particulate matter control. Richmond Liner Foundry and Machining Plant, Perfect Circle Division, Dana Corporation submitted a Part 70 permit application on October 11, 1996.

Source Definition

This iron sleeve casting and machining source consists of two (2) plants:

(a) Plant 1 is located at 2153 Williamsburg Pike; Richmond, Indiana (177-00004) and

(b) Plant 2 is located at 2175 Williamsburg Pike, Richmond, Indiana (177-00013).

Since these two (2) plants are located on contiguous properties, are owned by one (1) company, and together produce products for shipment to their customers, they will be considered one (1) source located at 2153 Williamsburg Pike, Richmond, Indiana. The source and OAQ inspector assigned to the source have been informed of this source evaluation.

Enforcement Issue

There are no enforcement actions pending.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (EF)
090a	Four (4) 60-inch spinners Group 4	35	2.0	20,000	100
090h	One (1) 92-inch spinner Group 1	15	1.0	3,700	100
100b	One (1) Cleaning Mill #5	32	2.0	16,000	80

Recommendation

The staff recommends to the Commissioner that the Part 70 Significant Source Modification be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on November 15, 2000. Additional information was received on November 29, as well as on December 19, 20 and 21, 2000.

Emission Calculations

See pages 1 and 3 of 3 of Appendix A of this document for detailed emissions calculations. Note that the control efficiency of the existing DC#10, that will control cleaning mill #7 has been revised from 98.0% in the Part 70 application to 98.1%. This increase in control efficiency was necessary to indicate that the proposed cleaning mill #7 would comply with the 0.03 grains per dry standard cubic foot limit pursuant to 326 IAC 6-1.

Potential To Emit of Modification

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary

source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U.S. EPA."

This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	**Potential To Emit** (tons/year)
PM	892
PM_{10}	106
SO_2	0.00
VOC	0.00
CO	0.00
NO_X	0.00

HAPs	**Potential To Emit** (tons/year)
Lead	0.046
Manganese Compounds	5.98
Chromium Compounds	2.34
Nickel Compounds	1.56
TOTAL	9.93

(a) Fugitive Emissions
Since this type of operation is one of the twenty-eight (28) listed source categories under 326 IAC 2-2, the fugitive particulate matter (PM) emissions are counted toward determination of PSD applicability.

(b) The Part 70 Operating Permit is being modified through a Part 70 Significant Source Modification to a yet to be issued Part 70 Operating Permit because the potential to emit PM and PM_{10} before controls of this modification exceeds twenty five (25) tons per year. This modification is being performed pursuant to 326 IAC 2-7-10.5(f)(4).

(c) An interim permit, 177-12987I, was issued for this modification on December 13, 2000.

County Attainment Status

The source is located in Wayne County.

Pollutant	Status
PM_{10}	attainment
SO_2	attainment
NO_2	attainment
Ozone	attainment
CO	attainment
Lead	attainment

(a) Volatile organic compounds (VOC) and oxides of nitrogen (NOx) are precursors for the formation of ozone. Therefore, VOC and NO_X emissions are considered when evaluating the rule applicability relating to the ozone standards. Wayne County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

(b) Wayne County has been classified as attainment or unclassifiable for all remaining criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

Source Status

Existing Source PSD or Emission Offset Definition (emissions after controls, based upon 8760 hours of operation per year at rated capacity and/or as otherwise limited):

Pollutant	Emissions (tons/year)
PM	308
PM_{10}	271
SO_2	76.5
VOC	30.5
CO	8,138
NO_X	36.9

(a) This existing source is a major stationary source because an attainment regulated pollutant is emitted at a rate of one hundred (100) tons per year or more, and it is one of the 28 listed source categories.

(b) These emissions are based upon the Technical Support Documents for T 177-6887-00090 and MSM 177-11453-00090.

Potential to Emit of Modification After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units

after controls. The control equipment is considered federally enforceable only after issuance of this Part 70 source modification.

Pollutant	PM (tons/yr)	PM_{10} (tons/yr)	SO_2 (tons/yr)	VOC (tons/yr)	CO (tons/yr)	NO_X (tons/yr)
Proposed Modification	17.8	2.83	0.00	0.00	0.00	0.00
PSD Significant Level	25	15	40	40	100	40

This modification to an existing major stationary source is not major because the emission increases are less than the PM and PM_{10} PSD significant levels. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply. Note, there are no debottlenecking issues with this modification.

Since the proposed emissions increase at this major source is by itself (without considering any decreases) less than the PSD significant levels, EPA policy does not require consideration of previous contemporaneous small (i.e., less than significant) emissions increases at the source.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This existing source has submitted their Part 70 (T 177 - 6887) application on October 11, 1996. The addition of five (5) spinners and the cleaning mill being reviewed under this permit shall be incorporated in the submitted Part 70 application.

Justification for Modification

(a) The Part 70 Operating Permit is being modified through a Part 70 Significant Source Modification to a yet to be issued Part 70 Operating Permit because the potential to emit before controls of this modification exceeds twenty five (25) tons per year. This modification is being performed pursuant to 326 IAC 2-7-10.5(f)(4).

(b) Since the Part 70 Operating Permit for this source has not been issued yet, the approval of this Significant Source Modification will allow the source to construct and operate.

Federal Rule Applicability

(a) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) applicable to this proposed modification.

(b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this proposed modification.

State Rule Applicability - Individual Facilities

326 IAC 2-2 (Prevention of Significant Deterioration (PSD)

The potential PM and PM_{10} emissions after control from this proposed modification as shown above are less than the PSD significant levels. This modification is a minor modification, not subject to the requirements of this rule. Therefore, any change or modification which would increase the total

potential to emit from the five (5) spinners and the one cleaning mill #7 of PM to twenty-five (25) tons per year or more, or PM_{10} to fifteen (15) tons per year or more, shall obtain prior approval from IDEM, OAQ.

326 IAC 2-4.1-1 (New source toxics control)

The potential single and combination HAPs emissions from the proposed modification are not major for HAPs and thus this rule does not apply.

326 IAC 6-1 (Nonattainment area limitations)

Since this source has a potential PM emission rate that exceeds one hundred (100) tons per year and in located in Wayne County, all facilities are subject to this rule. Any facilities not specifically listed in 326 IAC 6-1-14 are subject to 326 IAC 6-1-2 (a) or (e). The proposed five (5) spinners and the one (1) cleaning mill are subject to 326 IAC 6-1-2(a) which limits particulate matter emissions not to exceed 0.03 grains per dry standard cubic foot of exhaust air.

Operation	Allowable grain loading (grains per dry standard cubic foot)	Equivalent PM Emission Rate (pounds per hour) at the specified flow rate (dry standard cubic feet per minute)	Potential PM Emission Rate After Controls (pounds per hour)
Centrifugal Casting Operations (090)	0.03	Stack 90a 4.77 at 18,555.4 Stack 90h 0.883 at 3,432.8	0.164 0.063
Cleaning Mill #7 (100)	0.03	Stack 100b 3.96 at 15,394.1	3.83
Total			4.06

As shown in the above table, the five (5) spinners exhausting through Stacks 90a and 90h as well as cleaning mill #7 exhausting through Stack 100b will comply with 326 IAC 6-1 as calculated on Page 3 of 3 of Appendix A.

Testing Requirements

(a) Testing will be required during the period 60 to 180 days after the cleaning mill #7 is in operation, in order to demonstrate compliance with 326 IAC 6-1, the Permittee shall perform PM testing of the exhaust stack serving cleaning mill #7 (Stack 100b) utilizing methods as approved by the Commissioner since the uncontrolled potential to emit PM is significant greater than the PSD significant level of twenty-five (25) tons per year.

(b) It is not necessary to test any of the five (5) proposed spinners since the total uncontrolled potential to emit PM from these five (5) spinners is only 9.09 tons per year. This 9.09 tons per year of PM is less than the PSD significant level for PM of twenty-five (25) tons per year.

Compliance Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, compliance require-

ments are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The compliance monitoring requirements applicable to this modification are as follows:

The five (5) spinners and the one (1) cleaning mill have the following applicable compliance monitoring conditions as specified below:

(a) Visible emissions notations of the five (5) spinners and cleaning mill stack exhausts 90a, 90h and 100b shall be performed once per shift during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

(b) The Permittee shall record the total static pressure drop across the baghouses (DC#1, DC#3 and DC#10) controlling the five (5) spinners and cleaning mill, at least once per shift when the spinners and/or mill are in operation. Unless operated under conditions for which the Preventive Maintenance Plan specifies otherwise, the pressure drop across the baghouses shall be maintained within the range of 3.0 to 10.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading.

(c) The Permittee shall perform an inspection each calendar quarter of all bags controlling the centrifugal casting operations and the cleaning mill when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. All defective bags shall be replaced.

These monitoring conditions are necessary because the baghouses for these facilities must operate properly to ensure compliance with 326 IAC 6-1 and 326 IAC 2-7 (Part 70).

Conclusion

The construction and operation of this proposed modification shall be subject to the conditions of the attached proposed Significant Source Modification No. 177-12987-00090.

Appendix A: Potential Emission Calculations

Company Name: Richmond Liner Foundry and Machining Plant, Perfect Circle Division, Dana Corporation
Address City IN Zip: 2153 and 2175 Williamburg Pike, Richmond, IN 47374
Source Modification No.: 177-12987
Plt ID: 177-00090
Reviewer: Mark L. Kramer
Date: November 15, 2000

Emission Unit 090 — **One (1) New 92-inch Centrifugal Casting Machine (Spinner #18) to be Added to Group 1**

Pollutant	Maximum Rate (tons/yr)	Emission Factor (lbs/tons)	Uncontrolled Emission Rate (lbs/hr)	Uncontrolled Emission Rate (tons/yr)	Control Efficiency (%)	Controlled Emission Rate (lbs/hr)	Controlled Emission Rate (tons/yr)
PM	1.7	0.338	0.5746	2.52	89.1%	0.063	0.274
PM-10	1.7	0.338	0.5746	2.52	89.1%	0.063	0.274
SO2	1.7	0.00	0.00	0.00	0.0%	0.000	0.000
NOx	1.7	0.00	0.00	0.00	0.0%	0.000	0.000
VOC	1.7	0.00	0.00	0.00	0.0%	0.000	0.000
CO	1.7	0.00	0.00	0.00	0.0%	0.000	0.000
Lead	1.7	0.000016	0.00	0.000	89.1%	0.000	0.000013
Mn	1.7	0.002060	0.004	0.015	89.1%	0.000	0.001672
Cr	1.7	0.000811	0.001	0.006	89.1%	0.000	0.000658
Ni	1.7	0.000541	0.001	0.004	89.1%	0.000	0.000439

Dust collector estimates from applicant

Emission Unit 090 — **Four (4) New 60-inch Centrifugal Casting Machines (Spinner #41, 43, 45 & 47) to be Added to Group 4**

Pollutant	Maximum Rate (tons/hr	Emission Factor (lbs/tons)	Uncontrolled Emission Rate (lbs/hr)	Uncontrolled Emission Rate (tons/yr)	Control Efficiency (%)	Controlled Emission Rate (lbs/hr)	Controlled Emission Rate (tons/yr)
PM	4.44	0.338	1.50072	6.57	89.1%	0.164	0.716
PM-10	4.44	0.338	1.50072	6.57	89.1%	0.164	0.716
SO2	4.44	0.00	0.00	0.00	0.0%	0.000	0.000
NOx	4.44	0.00	0.00	0.00	0.0%	0.000	0.000
VOC	4.44	0.00	0.00	0.00	0.0%	0.000	0.000
CO	4.44	0.00	0.00	0.00	0.0%	0.000	0.000
Lead	4.44	0.000016	0.00	0.000	89.1%	0.000	0.000034
Mn	4.44	0.002060	0.009	0.040	89.1%	0.001	0.004367
Cr	4.44	0.000811	0.004	0.016	89.1%	0.000	0.001719
Ni	4.44	0.000541	0.002	0.011	89.1%	0.000	0.001147

Dust collector estimates from applicant

Emission Unit 100 — **One (1) Pangborn Rotoblast Cabinet (Cleaning Mill #7)**

Pollutant	Maximum Rate (tons/hr	Emission Factor (lbs/tons)	Uncontrolled Emission Rate (lbs/hr)	Uncontrolled Emission Rate (tons/yr)	Control Efficiency (%)	Controlled Emission Rate (lbs/hr)	Controlled Emission Rate (tons/yr)
PM	13.0	15.500	201.500	882.6	98.1%	3.83	16.8
PM-10	13.0	1.700	22.100	96.8	98.1%	0.420	1.839
SO2	13.0	0.000	0.000	0.000	0.0%	0.000	0.000
NOx	13.0	0.000	0.000	0.000	0.0%	0.000	0.000
VOC	13.0	0.000	0.000	0.000	0.0%	0.000	0.000
CO	13.0	0.000	0.000	0.000	0.0%	0.000	0.000
Lead	13.0	0.0007990	0.010	0.045	98.1%	0.000	0.001
Mn	13.0	0.1040000	1.352	5.922	98.1%	0.026	0.113
Cr	13.0	0.0408000	0.530	2.323	98.1%	0.010	0.044
Ni	13.0	0.0272000	0.354	1.549	98.1%	0.007	0.029

Emission factors from Fires for PM-10 and from Gutow for PM since its only shot blasting (not grinding and cleaning)

Summary of Emissions

Uncontrolled Potential Emissions

Significant Emission Units	PM (tons/yr)	PM-10 (tons/yr)	SO2 (tons/yr)	NOx (tons/yr)	VOC (tons/yr)	CO (tons/yr)	Lead (tons/yr)	Mn (tons/yr)	Cr (tons/yr)	Ni (tons/yr)
090 92-inch spinner	2.52	2.52	0.000	0.000	0.000	0.000	0.000	0.015	0.006	0.004
60-inch spinners	6.57	6.57	0.000	0.000	0.000	0.000	0.000	0.040	0.016	0.011
100 cleaning mill	882.57	96.80	0.000	0.000	0.000	0.000	0.045	5.922	2.323	1.549
Total	**891.66**	**105.89**	**0.00**	**0.00**	**0.00**	**0.00**	**0.046**	**5.98**	**2.34**	**1.56**

Controlled Potential Emissions

Significant Emission Units	PM (tons/yr)	PM-10 (tons/yr)	SO2 (tons/yr)	NOx (tons/yr)	VOC (tons/yr)	CO (tons/yr)	Lead (tons/yr)	Mn (tons/yr)	Cr (tons/yr)	Ni (tons/yr)
090 92-inch spinner	0.274	0.274	0.000	0.000	0.000	0.000	0.000	0.002	0.001	0.000
60-inch spinners	0.716	0.716	0.000	0.000	0.000	0.000	0.000	0.004	0.002	0.001
100 cleaning mill	16.77	1.84	0.000	0.000	0.000	0.000	0.001	0.113	0.044	0.029
Total	**17.76**	**2.83**	**0.00**	**0.00**	**0.00**	**0.00**	**0.001**	**0.119**	**0.047**	**0.031**

Appendix A: Emission Calculations
Baghouse Operations

Company Name: Richmond Liner Foundry and Machining Plant , Perfect Circle Division, Dana Corporation
Address City IN Zip: 2153 Williamburg Pike, Richmond, IN 47374
Source Modification No.: 177-12987
Plt ID: 177-00090
Reviewer: Mark L. Kramer
Date: November 15, 2000

								Actual
	Stack/Vent	Allowable Grain Loading per Dry	Gas or Air		Gas or Air	Equivalent	Equivalent	Emission Rate
EU	DC #	Std. Cubic foot of Outlet Air	Flow Rate	Temperature	Flow Rate	Emission Rate	Emission Rate	after Controls
		(g/dscf)	(acfm.)	(F)	(dcfm.)	(lbs/hr)	(tons/yr)	(lbs/hr)
090	090a DC#3	0.030	20000.0	100.0	18555.4	4.77	20.90	0.164
090	090h DC#1	0.030	3700.0	100.0	3432.8	0.883	3.87	0.063
100	100b DC#10	0.030	16000.0	80.0	15394.1	3.96	17.34	3.83